AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version and listings of claims in the application:

Listing of Claims:

1.   (Canceled).

2.   (Canceled).

3.   (Currently amended): A method for processing optical signals in a computer mouse, characterized in that, a laser beam is provided to illuminate the surface of an object, laser speckles are produced in the vicinity of the illuminated object surface; when the mouse is moving, the signals of the laser speckles are received by a photo sensor installed in the mouse, and the signals are processed, so as to calculate the quantity of laser speckle pulses received by the photo sensor, and to determine the relative displacement between the photo sensor and the illuminated object surface producing laser speckles on the basis of the average size of the laser speckles, wherein none of the laser speckles is stored, and wherein no cross-correlation analysis is performed in the determination of the relative displacement.

4.   (Previously presented): The method for processing optical signals in a computer mouse as claimed in claim 3, characterized in that, said photo sensor has groups of photoelectric sensing units, wherein each group comprises two or more photoelectric sensing units aligned in a line; after laser speckle signals on the object surface illuminated by laser beams are received by said groups of photoelectric sensing units, relevant photoelectric signals are amplified and shaped to calculate the size of the component of the relative displacement vector between the photo sensor and the illuminated object surface lying in the direction of the alignment of photoelectric sensing units; in the meantime, the direction of said component of the relative

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displacement vector is determined by the skewing of the electric signals produced by these two or more photoelectric sensing units.

5.   (Previously presented): The method for processing optical signals in a computer mouse as claimed in claim 3, characterized in that, said photo sensor has at least two groups of photoelectric sensing units, wherein each group comprises two or more photoelectric sensing units aligned in a line, and at least one group has an aligning direction different from the others, two of the at least two groups are intersectable with each other and use common units; after laser speckle signals on the object surface illuminated by laser beams are received, relevant photoelectric signals are amplified and shaped by these groups of photoelectric sensing units to calculate the size and direction of the component of relative displacement vector between the photo sensor and the illuminated object surface of the respective group, and the relative displacement vector between the photo sensor and the illuminated object surface in the two-dimensional plane is calculated on the basis of the size and direction of the components of said relative displacement vector calculated by two or more groups in different directions and the intersection angle between the components in different directions.

6-8.   (Canceled).